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TITLE: Process for the preparation of a controlled release system

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Polyethylene glycol (PEG, varying molecular weight) was dissolved in 0.22 M KC1 to a concentration of 12-40% (w/w). Dex-GMA was dissolved in 0.22 M KC1 to a concentration of 10-40% (w/w). Both solutions were flushed with nitrogen for 10 minutes. Next, 4.75 ml of the PEG solution and 0.25 ml of the dex-GMA solution were mixed and vortexed (Winn Vortex-Genie, maximum speed) for 1 minute resulting in a water-in-water emulsion with dextran as the inner phase and PEG as the outer phase. After 10 minutes TEMED ((N,N,N',N'-tetramethyl-ethylenediamine, 100 .mu.l, 20% (v/v) in 0.22 M KC1, pH adjusted with concentrated HCl to 7.2) and KPS (potassium peroxydisulfate, 180 .mu.l, 50 mg/ml in water) were added. The emulsion was incubated for 30 minutes at 37.degree. C. to polymerize the dex-GMA. The microspheres were washed twice with water and freeze dried.